

REMARKS

Status of the claims:

Claims 1-21 are pending and ready for further action on the merits. Reconsideration is respectfully requested in light of the following remarks.

Information Disclosure Statement

The Examiner has not provided Applicant with initialed copies of the PTO-1449 forms filed with the Information Disclosure Statements filed July 11, 2002 and July 8, 2003. The initialed copies thereof are respectfully requested from the Examiner in the next Office Action.

Rejections under 35 USC §103

Claims 1-18 and 21 have been rejected under 35 USC §103(a) as being unpatentable over Brust '019 (US Patent No. 6,100,019) in view of Nishikawa '977 (US Patent No. 6,077,977).

Applicant traverses.

Applicant respectfully points out that the Examiner has misinterpreted the 37 CFR §1.132 declaration that was filed with the response of June 16, 2003. Accordingly, Applicant herein below explains the relevance of the 37 CFR §1.132 declaration that was filed with the response of June 16, 2003.

The Examiner asserts that the declaration compares emulsions of d and e of the present specification with sample C in Brust '019. The Examiner asserts that not only are there differences between the percentage of total grain projected area in the instant invention and that of Brust '019, but there is also a difference in the silver iodide amounts. The Examiner asserts that the silver iodide amount that is used in the composition that represents the instant invention is 15 mole % whereas the amount in the Examples that represent the prior art (i.e., Brust '019) comprises 0.75 %. The Examiner further asserts that the differences in features (i.e., higher sensitivity, better storage stability and decrease in fog) that are seen between the instant invention can be explained by these differences in silver iodide amounts.

Applicant, however, respectfully submits that the silver iodide is not 15 mole % as asserted by the Examiner. The correct silver iodide content is 4.39 mole % as is described below.

All of the host tabular grain emulsions discussed in the declaration correspond to any of the disclosed "host tabular grain emulsions b, d and e" of the examples of the present invention. The "host tabular grain emulsions b, d and e" can be obtained by adding a below-described amount of AgNO_3 to a seed emulsion a or c in the 3 steps of first-stage growth to third-

stage growth. Please see the specification at page 81, line 4 to page 82, line 22 and at page 84, line 1 to page 87, line 3 for this description.

Seed emulsions a and c each contain 1 mole of Ag per 1 kg (1000 g) of emulsion. Please see the written description at page 80, lines 24-25 and at page 83, lines 20-22 for this description. In order to prepare each of the host tabular grain emulsions b, d, and e, 134 g of either one of seed emulsions a and c is used. Please see the written description at page 81, lines 5-6, page 84, lines 2-3, and page 86, lines 2-3. Therefore, the amount of AgNO_3 (MW=169.87 g/mol) in each of the seed emulsions a and c was $169.87 \text{ g/mol} \times 134\text{g}/1000\text{g/mol} = 22.76 \text{ g AgNO}_3$, whereas the silver iodide (AgI) content in each of seed emulsions a and c was 0 mol %.

The amount of AgNO_3 added in the first-stage growth was 137.5 g, and the amount of silver iodide added was 0 mol %. Please see the written description at page 81, lines 8-10, page 84, lines 5-11, and page 86, lines 5-11 where this is disclosed.

The amount of AgNO_3 added in the second-stage growth was 30.0g, and the amount of silver iodide added was 15 mol %. Please see the specification at page 81, lines 12-15, page 84, lines 13-19, and page 86, lines 13-19 for this description.

The amount of AgNO_3 added in the third-stage growth was 36.4 g, and the amount of silver iodide added was 15 mol %. Please

note the written description at page 81, lines 21-24, page 85, lines 1-4 and page 87, lines 1-7.

From these values in the above description, the silver iodide content in each of the "host tabular grain emulsions b, d, and e" can be calculated as follows.

$$[(30.0g + 36.4g)/(22.76g + 137.5g + 30.0g + 36.4g)] \times 15 \text{ mol } \% = 4.39 \text{ mol } \%$$

Thus, it should be apparent to those of ordinary skill in the art that the above presented data as relates to figures 1 and 3 of the declaration submitted June 16, 2003 indicates that the host tabular grain emulsions have a silver iodide content of 4.39 mol %. Accordingly, there is no difference in the silver iodide content between the host tabular grain emulsions employed in the experiments. Thus, each one of figures 1, 2 and 3 indicates a difference in effect that is brought about due to the difference in the ratio of the perfect epitaxial emulsion, and not due to any difference in silver iodide content.

By contrast, the emulsion of Brust '019, which has a perfect epitaxial emulsion ratio of 69%, has a silver iodide content of 0.75 mol %. Thus, the emulsion of Brust '019 is different from the emulsion having a ratio of the perfect epitaxial emulsion of 69% that is used in the experiment discussed in the declaration. However, in the declaration, the present invention and Brust '019 are compared with each other on

the assumption that the emulsion of Brust '019 is equivalent to that used in the experiment in the declaration, which has a ratio of the perfect epitaxial emulsion of 69%. Please see the declaration at page 2, lines 25-30.

As shown in figures 1 to 3, the emulsions of the present invention, which have a perfect epitaxial emulsion ratio of 85% or greater are markedly superior to the dummy data of the emulsion of Brust '019 (at 69%), particularly in terms of sensitivity when fresh, sensitivity and fog after storage, as well as in stability.

The Examiner asserts that the sensitivity increases as the amount of silver iodide added is increased. Please see page 5, lines 1-3 of the Office Action. If the Examiner is correct in this assertion, then the sensitivity of the actual emulsion disclosed in Brust '019 should naturally be lower than the dummy data of the emulsion used in the experiment of the declaration. This is because Brust '019 contains a lesser amount of silver iodide compared to the emulsion used in the experiment of the declaration. Therefore, based on this assertion, the actual emulsion of Brust '019 should naturally have a sensitivity lower than that of the emulsion having a ratio of the perfect epitaxial emulsion of 69% shown in figure 1 of the declaration.

As described above, the emulsion of the present invention, which has a perfect epitaxial emulsion ratio of 85% or greater,

has unexpectedly superior advantages in terms of sensitivity, as compared to the actual emulsion of Brust '019, having a ratio of perfect epitaxial emulsion of 69%. In other words, the instant invention is unexpectedly superior to the closest disclosed example in Brust '019. Accordingly, Applicant submits that the rejection over Brust '019 in view of Nishikawa '977 has been obviated. Withdrawal of the rejection is warranted and respectfully requested.

With the above remarks, Applicant believes that the claims, as they now stand, define patentable subject matter such that passage of the instant invention to allowance is warranted. A Notice to that effect is earnestly solicited.

If any questions remain regarding the above matters, please contact Applicant's representative, T. Benjamin Schroeder (Reg. No. 50,990), in the Washington metropolitan area at the phone number listed below.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a two (2) month extension of time for filing a response in connection with the present application. The required fee of \$420.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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